high water

FLOODPLAIN MANAGEMENT SECTION 449-2864

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WINTER FLOODS

Winter is the season when ice jam flooding occurs in many communities in Montana. Ice jam flooding is very unpredictable — it frequently exceeds levels that occur during free flow conditions of a 100-year frequency flood. Ice can exert great force; this type of flooding can wreak havoc on residential and commercial structures. This is not the time to let flood insurance policies lapse.

Ice flooding is often intensified by poorly designed stream alterations and artificial constrictions such as bridges and irrigation diversions. When a stream channel is widened the flow spreads out, and ice forms more readily. Water begins to flow over the top of the first layer of ice and freezes, building layer upon layer. During a thaw the ice breaks up, floats downstream and lodges against such things as bridge abutments, often forming dams that back water up and produce additional flooding.

" This disastrous flooding illustrates the results of poor floodplain management."

STRUCTURAL FLOOD CONTROL

Many Americans lost their homes during the flooding that occurred along the Mississippi River in December and early January, affecting states from Illinois all the way to Louisiana.

Billions of dollars have been spent up and down the Mississippi River in past decades for structural flood control measures such as dams, locks, and levees. In some places individual communities built levees to protect themselves. This affected nearby communities, even those just across the river, who, in turn built their own levees. Each additional levee compounded the effect that such structures had on flood heights and velocities. In addition, development was encouraged in areas protected by the levees. When the levees were recently overtopped by flood waters,losses in hundreds of millions of dollars resulted. Much of the money to repair damages will be paid by the taxpayers.

This disastrous flooding illustrates the results of poor floodplain management. Structural flood control measures can be effective in reducing damages if they are properly planned and if sound land-use management is practiced along with the structural works.

COMMUNITY PARTICIPATION?

You may have read recently about the community of Times Beach, Missouri. What has happened there serves as an example to other communities in flood prone areas. It appears that the residents of the community voted not to participate in the National Flood Insurance Program. Times Beach was one of the communities that was flooded by December's severe rain storms in that region of the country. The federal government now refuses to offer financial assistance to repair flood damages, except for essential health services.

Many of the residents of Times Beach feel the federal government should pay for their damaged property. However, the federal government had identified those areas that were flood prone and offered to assist the community in managing those areas in accordance with NFIP regulations. The community was aware of the regulations, but failed to enforce them when the community participated in the NFIP and eventually voted not to participate in the program.

"High Water" has cautioned its readers many times that if a community has been requested by the federal government to enroll in the NFIP and refuses, flood insurance will not be available to residents and the community will not receive federal assistance to clean up and repair flood damaged properties. That is exactly what is happening in Times Beach.

At this time, Times Beach has not applied for enrollment in the NFIP. If they should in the future there are some important considerations that must be addressed. New construction has occurred in the identified floodplains during the three years since the community voted not to be in the program. If the community enrolls now, some of this new construction would have very high insurance premiums because structures were placed in low spots. Some are **14 feet below** the base flood elevation. Remember — construction that occurs following the effective date of the flood insurance rate map incurs premiums at actuarial rates.

We hope a similar situation will never happen in Montana. The potential is there, however, since many communities (29) have had their floodprone areas identified and were requested to enroll in the program, but have not done so.

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FLOODWAY AND MOBILE HOMES

The Floodplain Management Section appreciates the questions that many of you have asked concerning the enforcement of the regulations. Many of these questions concern the placement or replacement of mobile homes in the floodplain and floodway. Many communities are not allowing new mobile home parks or individual home sites to be located in the floodplain.

In the emergency phase communities, mobile homes may be placed in flood hazard areas only if they are anchored to a concrete pad or to the ground, using over-the-top and frame ties to prevent flotation, collapse, or lateral movement. The structure must be built and located by methods and practices that minimize flood damage. This means that mobile homes shall be located as far from the waterway as practicable and either elevated or placed on high ground to reduce flooding potential. Also, the mobile home must not increase the flood hazard by increasing flood heights or diverting flood waters. All fuel tanks must be anchored to prevent flotation.

The regular phase communities have more restrictions to consider. No new structures, including mobile homes, may be constructed within the identified **floodway** boundaries. But, if a trailer should be moved out, its replacement in an existing mobile home park is allowed, if: 1) there is an existing waste disposal and water supply system; 2) the new home is anchored according to the regulations; and 3) the power supply system (electric and/or natural gas) is floodproofed according to the regulations.

Under Montana law the standards of the Montana Department of Health and Environmental Sciences (DHES) prohibit new solid waste disposal, water distribution systems, sewage treatment and/or disposal systems in the floodway.

The October issue (Volume 7) of "High Water" explained the mobile home anchoring requirements in detail. The floodway is the area where the greatest velocities and depths of water are found. In order to reduce the hazard to the home and other structures, replacement units must be tied down.

A REMINDER

All incoming electric power service equipment, including meters, control centers, transformers, lighting panels and other stationary equipment must be located at least 2 feet above the base flood elevation (100-year flood). The main power service line shall have automatically or manually operated electrical disconnect equipment. The manually operated equipment must be located at an accessible remote location outside the floodplain and be above the base flood elevation. Any electrical wiring systems installed below the base flood elevation shall be suitable for continuous submergence and may not contain fibrous components.

Float-operated automatic control valves must be installed in supply lines to gas furnaces so that the fuel supply is automatically shut off when flood waters reach the floor level. Manually operated gate valves that can be operated from a location above the elevation of the base flood shall also be provided.

Replacement units located in the floodway must not use fuel tanks, which can be swept away by the fast moving water and can be extremely dangerous. Electricity or piped natural gas must be provided to be in compliance; otherwise the mobile home cannot be placed in the floodway area.

In the **floodway fringe** area, the existing mobile home park must comply with these conditions, too. New parks or individual lots must comply to the regulations for residential structures; for example, the mobile home must be elevated on fill to at least two feet above the base flood elevation, must be anchored, and utilities must be floodproofed.

The Floodplain Management Section is coordinating a letter with the Licensing Section of the Food and Consumer Safety Bureau of the Department of Health and Environmental Sciences to inform mobile home park owners of these regulations. (The Food and Consumer Safety Bureau licenses mobile home subdivisions.) This information should help with enforcement problems. The precautions outlined are necessary to reduce the potential for property damage and loss of life.

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